

Arizona
Department of Revenue



2D Barcode Developer's Manual
Pub AZ-100
TAX YEAR 2004

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SECTION 1 – CHANGES FOR TAX YEAR 2004

1. Changes or new additions to specifications and layouts are **bold** text. Record layouts are now available in Publication AZ-100-A.
2. 2D Barcode function is a default setting when electronic filing is also offered in the program.
3. Arizona Department of Revenue contact information for 2D Barcode has changed to:

Donna Muccilli, E-File Administrator
Voice: 602 716-6513
Fax: 602 716-7997
Email: 2DBarCode@azdor.gov

Mailing Address:

Donna Muccilli
Arizona Department of Revenue
Office of Electronic Filing, Room 100
1600 West Monroe Street
Phoenix, Arizona 85007-2650

4. Beginning Tax Year 2004, the Arizona Department of Revenue will add the following forms to 2D Barcode:

140NR Non-Resident Personal Income Tax Return
140PY Part-Year Personal Income Tax Return
140PTC Property Tax Refund (Credit) Claim
5. Supporting forms available for 2-D Barcode are:
140PY A(PY) - Itemized Deductions Part-Year Resident
140PY A(PYN) - Itemized Deductions for Part-Year Resident with Nonresident Income
140NR A(NR) - Itemized Deductions for Nonresidents
6. Refund on Decedent Returns
To claim a refund on behalf of a deceased taxpayer, the Form 131 *Claim for Refund on Behalf of Deceased Taxpayer* must be completed and attached along with any additional documentation with the return.

SECTION 2 - INTRODUCTION

This publication provides information necessary for the development of software intended for use by businesses and individuals in filing Arizona income tax returns with 2-D Barcodes. If you have any questions, please contact the Arizona Department of Revenue personnel listed below. Please refer to our web site **www.azdor.gov** for 2-D Barcode updates.

You are invited to contact us with any question or comment you have regarding our electronic filing program.

Donna Muccilli, E-File Administrator @ 602 716-6513
Fax: 602 716-7997

Email: 2DBarCode@azdor.gov

Mailing Address:

Arizona Department of Revenue
Office of Electronic Filing, Room 100
1600 West Monroe Street
Phoenix, Arizona 85007-2650

Web Address: www.azdor.gov

The Arizona Department of Revenue's website may be accessed for 2-D Barcode updates including tax forms, form instructions and additional information covering a broad range of tax-related topics.

SECTION 3 - PROGRAM PARTICIPATION

Any software vendor who is considering using 2-D Barcode needs to be approved by the Arizona Department of Revenue for form design. The form design is the same regardless of whether not the 2-D Barcode is used. To participate in the 2-D Barcode program, please send written intent via e-mail to 2DBarCode@azdor.gov

Once the Arizona Department of Revenue receives written notification of intent to participate, testing may begin. Test scenarios will be sent to you via e-mail after you notify us of your intent to participate.

Approval must be received from Arizona Department of Revenue on testing phase prior to submitting live forms.

When reviewing forms for approval, the department is verifying the form can be processed through its mainstream processing systems. The department does not review or approve the logic of specific software programs, nor confirm the calculations entered on the forms output from these programs. The accuracy of the program remains the responsibility of the software developer. The accuracy of the information on returns prepared using a computer program remains the responsibility of the taxpayer.

Approved software vendors will be posted on the department's web site at http://www.azdor.gov/2d_barcode/2Dmenu.htm

Important Notice

Approval of software for 2-D Barcode does not include approval of any form developed/produced for hardcopy submission to the Arizona Department of Revenue. The External Services and Special Projects Division of the Department of Revenue must approve all Arizona tax forms. Address your inquiries and requests for tax form approval to:

Bob Williams
Forms Approval – Room 810
Arizona Department of Revenue
1600 West Monroe
Phoenix, AZ 85007
Telephone: 602 716-6801

SECTION 4 - SOFTWARE REQUIREMENTS

Any software developed for the 2-D Barcode program must meet state requirements. The following is to compliment IRS and Arizona publications and is in no way intended to alter or amend their requirements.

1. Comply with all state requirements specified in the following publications:
 - Arizona Software Developers Manual AZ-100 for 2-D Barcode for Tax Year 2004.
 - Arizona Publication AZ-100-A File Specifications and Layout.
2. Adhere to all state procedures, requirements and specifications; successfully complete all testing.
3. Develop preparation software in accordance with statutory requirements and Arizona Department of Revenue return preparation instructions.
4. Provide accurate Arizona income tax returns with printed 2-D Barcode in correct format.
5. Place 2-D Bar Code in the blank rectangle to the left of lines 12 thru 24.
6. 2D Barcode function is a default setting when electronic filing is also offered in the program.
7. Print four digit NACTP vendor code on the bottom of the form to the right of the ADOR form number. (For identification purposes only).
8. Provide data validation, verification and error detection to prevent transmission of incomplete, inaccurate or invalid return information.
9. Developed software is not to support 2-D Barcode of any form not approved for 2-D Barcode by the Arizona Department of Revenue.

SECTION 5 - RETURNS AVAILABLE FOR 2-D BARCODE

Both refund and payment due returns may be filed with 2-D Bar Coding. The primary tax return supporting 2-D Barcode for tax year 2004 is:

- 140 Resident Personal Income Tax Return
- 140A Resident Personal Income Tax Return (Short Form)
- 140NR Non-Resident Personal Income Tax Return
- 140PY Part-Year Personal Income Tax Return
- 140PTC Property Tax Refund (Credit) Claim

Supporting forms available for 2-D Barcode consist of the following types. These forms MUST be included in the 2-D Barcode for the 140 form when required/utilized for return preparation and filing.

- AZ Schedule A (2-D) Arizona Copy of Federal Schedule A
- 140 Schedule A Arizona Itemized Deduction Adjustments
- 140PY A(PY) - Itemized Deductions Part-Year Resident
- 140PY A(PYN) - Itemized Deductions for Part-Year Resident with Nonresident Income
- 140NR A(NR) - Itemized Deductions for Nonresidents

Forms identifying tax withheld (i.e. W-2 and 1099R category type forms) are to be included in the 2-D Bar Code when an amount for state withholding exists.

All other supporting Arizona forms are not to be included in the 2-D Barcode. These forms, plus the forms included in the 2-D Barcode, must be printed, attached to the return, and sent to the Arizona Department of Revenue. Refer to Arizona Publication AZ-100 Arizona Department of Revenue 2-D Bar Code File Specifications and Record Layout for state record information.

The Arizona Department of Revenue Forms 140, 140A, 140NR, 140PY and 140PTC (software vendor versions) and instructions are sent to all NACTP members via e-mail. If you have not received these forms, you may request them through our 2D Barcode e-mail address 2DBarCode@azdor.gov.

SECTION 6 - GENERAL INFORMATION / ERRORS TO AVOID

Barcode:

- Barcode width should be 3 5/16". The width shall not be wider than 3 5/16". The size of the barcode vertically will vary according to the information contained in the barcode.
- DO NOT stretch the barcode.

Fields:

- For blank fields, use a carriage return <CR>

Numeric:

- Do not zero fill numeric fields.
- Check boxes, an X indicates Yes, nothing is Null
- Use whole-dollar amounts only.
- Commas are not permitted in numeric fields.
- Round dollar amounts from W-2s, 1099R, etc before entering amount on tax form.

Alpha:

- Use UPPERCASE for all alpha characters.
- Do not punctuate suffixes - Jr, Sr, I, II, III, etc.
- Do not punctuate middle initial. Example: Mary J. Doe (incorrect) MARY J DOE (correct).
- Do not place a space in last name. Example: MC DONALD(incorrect) MCDONALD (correct), remove space to ensure accurate processing.
- Hyphens are acceptable in last name fields.
- No extra spaces should be in data. Example: "100 East Main, Apt 500B" should be keyed as "100 EAST MAIN APT 500B".

Miscellaneous:

- Caution user to reprint barcode page if data changes after original printing of a form.
- Do not cover information with pre-printed label.

The intended use of the Description Column is to cross reference the barcode field number, form line number, and form line wording. The description may not be exact due to limitations of space. Refer to the tax form and instructions for the exact line wording.

Trailer: The last field in the barcode data stream is the trailer. The trailer is used to indicate the end of data has been reached. A static String of "*EOD*" is used as the trailer value. If a trailer is not found, this indicates a data overflow condition has occurred.

Header Information: There is information generic to all barcodes that should be placed first in the barcode data stream. The first six fields in the barcode comprise the official header. The fields in the official header are variable length and therefore can contain as much or as little data as is necessary.

This information must be consistent among all barcodes and is defined below. (Note: The symbol <CR> is used to represent a single carriage return character.)

Header Version Number: will be incremented each time the standards group alters the physical structure of the barcodes that were created using multiple header formats. This value is static for all barcodes and is currently T1.

Developer Code: A four-digit code used to identify the Software Developer whose application produced the bar code. The purpose of this field is to allow forms to be traced to the vendor producing them. Software Developer codes are assigned through the NACTP.

Jurisdiction: An alphanumeric identifier indicating the taxing jurisdiction. Use the US Postal Service's official state abbreviations.

Description: An alphanumeric identifier used to describe the form being processed. The identifier can be used to route the barcode information to the correct system for further processing.

Specification Version: A number that identifies the version of the specifications used to produce the form barcode. These specifications are provided by the jurisdiction processing the form and describe the data layout in the barcode. Draft versions of the specifications are not assigned version numbers. The final version shall be "0", revision thereafter will increase numerically.

Software/Form Version: A vendor defined version number that reflects the software and form revision used to produce the barcode.

Example

Header Version Number "T1"

Developer Code: "9999"

Jurisdiction: "AZ"

Description: "AZ140"

Specification Version: "0"

Software/Form Version: "1.0"

Raw Header

T1<CR>9999<CR>AZ<CR>AZ140<CR>0<CR>1.0<CR>

SECTION 7 - MAILING ADDRESSES:

Not sending a payment or expecting a REFUND
Arizona Department of Revenue
PO Box 29205
Phoenix, AZ 85038-9205

Sending a payment:
Arizona Department of Revenue
PO Box 29204
Phoenix, AZ 85038-9204

SECTION 8 - TESTING

Testing of software developed for 2-D Barcode is mandatory. All software must be tested using the Arizona scenarios. Scenarios require the appropriate forms to be created for 2-D Barcode testing. Test scenarios are e-mailed to those who submit their notice of intent to participate.

It is not necessary to submit test returns for forms not supported by the software application. However, to maximize the benefits of alternative filings, the Arizona Department of Revenue encourages software developers to include all available 2D barcode forms into the program application.

The Arizona Department of Revenue will give formal confirmation when software has successfully completed testing. Only approved software may be released and distributed by the developer.

Any developer wishing to conduct testing in addition to that supplied and required by the Arizona Department of Revenue must obtain approval to do so prior to test submission.

SECTION 9 - ERROR DETECTION and NOTIFICATION

The Arizona Department of Revenue will immediately notify the developer when it detects a software problem or error. Likewise, software developers are to immediately notify the department of problems or errors associated with the software or its use. Such notifications are to be made by e-mailing the 2-D Barcode staff office at 2DBarCode@azdor.gov.

When a software error is identified, it is the responsibility of the software developer to immediately notify their user population, correct the problem and expeditiously distribute the appropriate software revision (correction) to their clients. Additionally, the Arizona Department of Revenue is to receive immediate notification of all software errors and problems. The department is to be advised when corrections are made and supplied with the related software version number and release date. The department is to be kept advised of all software versions (identification number and distribution date).